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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,423	04/25/2001	Michael D. Jenkins	X0104E	9325
24321	7590	05/04/2005	EXAMINER	
Law Offices of James J. Ralabate 5792 Main St. Williamsville, NY 14221			LIU, MING HUN	
			ART UNIT	PAPER NUMBER
			2675	

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/843,423

Applicant(s)

JENKINS ET AL.

Examiner

Ming-Hun Liu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-21 and 25-47 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 19-21 and 25-47 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on *** has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 29, 30, 33, 34, 37, 38, 39, 42, 43, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,486,875 to O'Donnell in view of US Patent 6,238,043 to Silverbrook.

In reference to claim 29 O'Donnell teaches a wireless control device for electronic devices shaped as a writing instrument (figure 1), the control device comprising a first structure including electrical components comprising a microphone (item 33) enabled to receive audio input from a user to control electronic devices (column

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3, lines 19-21), a speech processing circuitry (microprocessor), a power supply, (item 24) and a transmitter (column 4, lines 42-43) all in electrical contact with each other.

O'Donnell however does not teach incorporating a second structure including interchangeable function module, wherein said module includes at least one of a laser pointer, a writing implement, or a computer input device. Silverbrook, on the other hand, teaches a pen shaped modular device that includes interchangeable function modules (figures 1-12 and column 3, lines 34-42). It would have been obvious to one skilled in the art to modify O'Donnell's invention to accept various pen modules such as laser (Silverbrook: figure 7) pointer and writing implement (Silverbrook: figure 11), because as explained by Silverbrook, these additional modules are provided to add versatility to the invention as laser and writing instruments are commonly incorporated into pen-like structures (column 5, lines 1-2).

In reference to claim 30 and 39, O'Donnell's disclosure does not explicitly teach a button to enable control however, Silverbrook in his disclosure does. It can be seen from figure 7, that button 72 is included in the exterior surface. It would have been obvious to one skilled in the art to add a control button, as Silverbrook teaches, into the system of O'Donnell, in order to invoke command to the controlled of the microprocessor in the pen.

In reference to claims 33 and 42, O'Donnell teaches a pen with a housing, however he does not disclose expressly that the pen be constructed in an abrasion resistant material.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to manufacture O'Donnell's input pen with an abrasion resistant material because applicant has not disclosed that making the pen out of abrasion resistant material provides an advantage, nor used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with a input pen made from a different material, because the functionality of the input device does not depend on the particular material of the housing.

Therefore, it would have been an obvious matter of design choice to modify O'Donnell's input device to obtain the invention as specified in the claims.

In reference to claim 34 and 43, O'Donnell teaches a similar invention however he never explicitly states that the battery is rechargeable. The examiner takes Official Notice that rechargeable batteries are well known in the art power. It would have been obvious to one skilled in the art to use a rechargeable batter in O'Donnell's invention so that the input device would be more convenient and economical for the end user.

Wireless devices require battery power and since there is no compartment to change the batteries in these inventions, it would have been obvious to choose a rechargeable battery, so that the expensive device can be reused after the power from the battery is drained.

In reference to claims 37 and 46, it is clear from O'Donnell's disclosure that the electrical device is a computer (column 2, line 31).

In reference to claims 38, it can be seen from figures 1 and 2 of O'Donnell that he teaches a wireless control device comprising a fuselage formed in the shape of a pen including electrical components comprising speech processing circuitry (23), a power supply (24), and a transmitter (column 4, lines 42-43) all in electrical contact with each other and terminating in a top and bottom portion of said fuselage. The top portion of the fuselage include a microphone electrically (figure 1, item 33) connected to the electrical components of the fuselage, where the microphone enabled to receive audio input from a user to control the electronic devices (column 3, lines 19-21 and column 4, lines 57-61).

O'Donnell however does not teach the incorporation of a removable tip adjacent to said bottom portion of said fuselage comprising a function module, wherein said function module includes at least one of a ink pen module, a lead pencil module, a laser pointer module, or a roller ball mouse module. Silverbrook, on the other hand, teaches a pen shaped modular device that includes interchangeable function modules (figures 1-12 and column 3, lines 34-42). One skilled in the art would change the functional fuselage of O'Donnell to include Silverbrook's modular attachment (male/female) scheme to the existing fuselage. It would have been obvious to one skilled in the art to modify O'Donnell's invention to accept various pen modules such as laser (Silverbrook: figure 7) pointer and writing implement (Silverbrook: figure 11), because as explained by Silverbrook, these additional modules are provided to add versatility to the invention as laser and writing instruments are commonly incorporated into pen-like structures (column 5, lines 1-2).

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Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Donnell in view of Silverbrook and further in view of US patent 6,380,930 to Van Ruymbeke.

In reference to claims 21 and 40, O'Donnell teaches the use of wireless data transmission, however he does not specifically single out the use of **Bluetooth** technology. On column 4, lines 42-44, O'Donnell states that "a wireless computer connector also is included in pen. Connector can be any acceptable technology." O'Donnell understands that RF is not the only wireless transmission alternative and leaves the particulars of the wireless transmission to those familiar to the art.

As Van Ruymbeke explains in the background of his invention, Bluetooth is a "universal wireless interface" between computer devices (column 1, lines 28-34). I would have been obvious to one skilled in the art to include Bluetooth wireless transmission in O'Donnell's invention to assist with the portability of the pen device from system to system.

Claims 35, 36, 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Donnell in view of Silverbrook and further in view of Pertrushin.

In reference to claims 35 and 44, O'Donnell does not specifically teach the use of an ADC in the audio processing circuit, Pertrushin on the other hand does. On column 53, lines 4-5, Pertrushin teaches the use of an analog to digital converter for speech processing. It would have been obvious to one skilled in the art to add Pertrushin's ADC to O'Donnell's invention in order to convert the analog microphone signal to a digital computer signal to perform voice recognition.

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In reference to claims 36 and 45, O'Donnell does not specifically teach the use of a digital signal processor in the audio processing circuit, however Pertrushin does. On column 53, lines 5-9 Pertrushin teaches the use of a DSP circuit for voice recognition. It would have been obvious to one skilled in the art to include Pertrushin's DSP circuit into O'Donnell's voice recognition circuit so that the digital sound can be analyzed for command matches.

Claim 32 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Donnell in view of Silverbrook and further in view of Ebeling.

In reference to claims 32 and 41, O'Donnell's invention is very similar to the one being claimed, however O'Donnell does not teach having the antenna as the clip. Ebeling on the other hand, does teach a wireless pen device that utilizes the antenna as a clip. It would have been obvious to one skilled in the art to modify O'Donnell's invention with Ebeling's clip/antennae to conserve space in the pen because when the "antenna is formed into a clip, as illustrated in figure 2A, (it) permits the pen shaped dimensioning device 30 to be attached to a shirt pocket" (column 5, lines 2-5).

4. Claims 19, 20, 25-28 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,486,875 to O'Donnell in view of Ebeling, in view of Silverbrook and finally in view of Pertrushin.

In reference to claims 19, 28 and 47, O'Donnell teaches a mobile wireless pen-shaped housing computer input device enabled to interact with a computer (figure 1 column 3, lines 19-21). O'Donnell teaches a pen structure that includes an audio

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activation means (item 33) for transmitting audio instructions to the computer (column 3, lines 19-21).

O'Donnell's invention is similar to this claimed invention however O'Donnell's first structure is missing an antennae clip. As explained in the rejection of claim 32, Ebeling teaches a wireless pen device that utilizes the antenna as a clip. It would have been obvious to one skilled in the art to modify O'Donnell's invention with Ebeling's clip/antennae to conserve space in the pen because when the "antenna is formed into a clip, as illustrated in figure 2A, (it) permits the pen shaped dimensioning device 30 to be attached to a shirt pocket" (Ebeling: column 5, lines 2-5).

O'Donnell also fails to teach a first and second selectively detachable structures, where the first structure includes a means for attachment to a user and for functioning as an antennae, and the second structure contains at least one removable functional module including one of an ink pen module, a lead pencil module, a laser pointer module, or a roller ball mouse module. As explained in the rejection of claim 29, Silverbrook teaches a pen shaped modular device that includes interchangeable function modules (Silverbrook: figures 1-12 and column 3, lines 34-42). It would have been obvious to one skilled in the art to modify O'Donnell's invention to accept various pen modules such as laser (Silverbrook: figure 7) pointer and writing implement (Silverbrook: figure 11), because as explained by Silverbrook, these additional modules are provided to add versatility to the invention as laser and writing instruments are commonly incorporated into pen-like structures (Silverbrook: column 5, lines 1-2).

Last, O'Donnell fails to teach the use of speech to control the power state of the computer. However, Pertrushin teaches a means for controlling power generated in the

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computer via the audio activation means (Pertrushin: column 53, lines 24-45). Pertrushin invention comprises a microphone and audio processing circuitry (item 2616), a computer containing a means for recognizing and receiving the audio commands and means for converting the audio commands into electrical signals to thereby control power and heat generated in the computer, the computer having means for conveying the instructions to a processor and other components in the computer (column 53, lines 39-43).

It would have been obvious to one skilled in the art to include Pertrushin's power controlling feature onto O'Donnell's microphone audio control pen to simplify human-computer interface (Pertrushin: column 1, line 23).

In reference to claim 20, O'Donnell teaches an input device that includes a wireless transmitter (item 27) that communicates with the computer, said computer having a wireless receiver to cooperate with and receive audio instructions from the wireless transmitter (column 4, lines 42-48).

In reference to claim 25, O'Donnell does not specifically teach the use of an ADC in the audio processing circuit, Pertrushin on the other hand does. On column 53, lines 4-5, Pertrushin teaches the use of an analog to digital converter for speech processing. It would have been obvious to one skilled in the art to add Pertrushin's ADC O'Donnell's invention in order to convert the analog microphone signal to a digital computer signal to perform voice recognition.

In reference to claim 26, O'Donnell does not specifically teach the use of a digital signal processor in the audio processing circuit, however Pertrushin does. On column 53, lines 5-9 Pertrushin teaches the use of a DSP circuit for voice recognition. It would have been obvious to one skilled in the art to include Pertrushin's DSP into O'Donnell's voice recognition circuit so that the digital sound can be analyzed for command matches.

In reference to claim 27, O'Donnell does not specifically teach the use of a command buffer memory, however on column 40, lines 14-17, Pertrushin teaches the use of a memory buffer. It would have been obvious to one skilled in the art to include Pertrushin's memory buffer in O'Donnell's invention so that speech commands be analyzed and recognized.

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Donnell in view of Ebeling, in view of Silverbrook, in view of Pertrushin and further in view of Van Ruymbeke.

In reference to claim 21, O'Donnell teaches the use of wireless data transmission, however he does not specifically single out the use of **Bluetooth** technology. On column 4, lines 42-44, O'Donnell states that "a wireless computer connector also is included in pen. Connector can be any acceptable technology." O'Donnell understands that RF is not the only wireless transmission alternative and leaves the particulars of the wireless transmission to those familiar to the art.

As Van Ruymbeke explains in the background of his invention, Bluetooth is a "universal wireless interface" between computer devices (column 1, lines 28-34). It would have been obvious to one skilled in the art to include Bluetooth wireless transmission in

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O'Donnell's invention to assist with the portability of the pen device from system to system.

Response to Arguments

6. Applicant's arguments with respect to claims 19-21, 25-47 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ming-Hun Liu whose telephone number is (571)272-7770. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 571-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ming-Hun Liu


KENT CHANG
PRIMARY EXAMINER